C.D. Howe Institute
Commentary

No. 184, June 2003 ISSN 0824-8001

THE BORDER PAPERS

The Road to a Canada-U.S. Customs Union:

Step-by-Step or in a Single Bound?

Danielle Goldfarb

In this issue...

The author examines the feasibility and desirability of a Canada-U.S. customs union.

The Study in Brief

As Canada determines how best to safeguard and enhance its access to the U.S. market, one option, either as a stand-alone or as part of a bigger package, is to negotiate a Canada-U.S. customs union. This would involve Canada and the U.S. establishing a common external tariff and other barriers to imports from the rest of the world. This *Commentary* assesses the feasibility and desirability of a basic customs union, as well as deeper and more limited variants. A customs union would, on balance, enhance Canadian economic welfare. The major benefit of a Canada-U.S. common tariff against third countries is that it would eliminate costly rules of origin requirements between Canada and the U.S., reducing border costs and bolstering investor confidence. A customs union with a common trade-remedy regime would eliminate trade-remedy penalties between the two countries, reducing trade irritants. Common non-tariff barriers would further reduce border frictions.

Despite expected benefits for businesses and consumers and the similarity of Canadian and U.S. external tariffs in many industries, arriving at a basic customs union raises both practical and political challenges. Tariff structures differ considerably in some sectors, and even when MFN duties are similar, a customs union would involve reconciling tariffs and rules of origin in the many bilateral free-trade agreements signed separately by Canada and the U.S., as well as special arrangements for developing countries and other nations, including Cuba. Canada and the U.S. would also have to coordinate their positions in future trade negotiations, agree on how to share tariff revenue and create a uniform customs code. A customs union which exempted some sectors, harmonized tariffs in some areas initially, eliminated MFN tariffs on intermediate goods, or eliminated rules of origin where tariff rates are close are practical intermediate options which would secure some of the benefits of rules of origin elimination. All would improve on the status quo by enhancing access for Canada to the U.S. market and increasing predictability for traders and investors.

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$12.00; ISBN 0-88806-600-7
ISSN 0824-8001 (print); ISSN 1703-0765 (online)

103-05179/

Canada faces tough decisions as it determines how best to safeguard and enhance its access to the U.S. market. One option is to negotiate a Canada-U.S. customs union. A basic customs union would involve Canada and the U.S. establishing a common tariff against imports from the rest of the world, allowing for the free circulation of goods within their common area. Such an approach would represent the next formal step in policy-led economic integration after the North American Free Trade Agreement (NAFTA). David Dodge, Governor of the Bank of Canada, has commented on the benefits of a Canada-U.S. customs union, arguing that eliminating trade barriers over the long-term will generate more wealth and higher incomes for Canadians.[1] Other supporters of the idea say that, since many Canadian and U.S. tariff rates against non-NAFTA countries are already nearly identical, a customs union is a straightforward way to eliminate remaining trade and investment barriers, and possibly to get rid of trade irritants.[2] Still others, have proposed elements of a customs union as part of a larger package of initiatives.[3] There has been little evaluation, however, of a Canada-U.S. customs union and its possible variants in more detail.

Bank of Canada Governor David Dodge says a customs union could generate wealth and higher incomes.

This *Commentary* assesses the feasibility and desirability of negotiating and establishing a Canada-U.S. customs union. It examines the value of both deeper and more limited versions of such an approach. A more limited version of a customs union might establish common external tariffs in some sectors and leave more difficult ones for the future. A deeper variant might eliminate non-tariff barriers and the use of trade-remedy laws within the union. The paper assesses the expected benefits and costs of these approaches relative to NAFTA and in the larger context of multilateral trade liberalization. It surveys the practical, political and strategic challenges that establishing a customs union might pose, including comparing the U.S. and Canadian tariff structures to determine how similar they are. The focus is on Canadian implications of a Canada-U.S. project, though the paper briefly considers implications for the U.S., as well as issues raised if Mexico were included.

Since significant progress to reduce trade barriers at the multilateral level is only likely in the longer-term, a regional customs union is an important interim option. Limited available evidence indicates that a basic customs union would, on balance, enhance Canadian economic welfare. A key benefit of converging to a common external tariff is that Canada and the U.S. could eliminate complicated

I am grateful to Alan Alexandroff, Wendy Dobson, Rick Harris, Michael Hart, Christine McDaniel, Jack Mintz, Rolf Mirus, Elina Papadaki, Bill Robson, Dahlia Stein and Robert Stern for helpful comments on a previous draft of this paper. Any errors are mine alone.

1 Testimony to House of Commons Finance Committee on April 29, 2003.

2 Their views are highlighted in a recent report by the House of Commons Standing Committee on Foreign Affairs (Canada, 2002, pp. 182–185).

3 Recent proposals for a common external tariff for some or all goods as part of a package of initiatives towards greater North American integration include Gotlieb (2003), Barrett and Williams (2003), Burney (2003), Dobson (2002), Hufbauer and Vega (2002), and Hart and Dymond (2002).

and distortion-causing NAFTA rules of origin requirements between the two countries,[4] estimated to cost 2 percent-to-3 percent of NAFTA GDP. A common external tariff is unlikely to raise average tariff levels facing third countries and may lower them, helping diversify Canadian trade. Though some industries would experience temporary adjustments, overall, a customs union is likely to increase predictability for investors, expand output, trade and employment and provide consumers with lower prices and increased choice.

Despite expected benefits and the similarity of Canadian and U.S. external tariffs in many industries, arriving at a basic customs union raises both practical and political challenges. Those include reconciling tariff structures in the agricultural and textile sectors, reconciling tariffs and rules of origin in the many bilateral free-trade agreements (FTAs) signed separately by Canada and the U.S., harmonizing special provisions for developing countries and other nations such as Cuba, agreeing on how to share tariff revenue and creating a uniform customs code. In addition, Canada and the U.S. would have to coordinate their positions in future trade negotiations. Including Mexico — which has 11 FTAs — would greatly increase the complexity of such an agreement.

A deeper customs union would also bring both benefits and challenges. Eliminating non-tariff barriers would greatly reduce border frictions. Including a common trade-remedy regime would reduce trade irritants by eliminating the use of trade-remedy penalties — such as anti-dumping (AD) measures and countervailing duties (CVD)[5] — between the two partners. The elimination of these laws was a key Canadian objective during the Canada-U.S. FTA negotiations. Such an approach would require a more coordinated trade policy than a basic customs union, as well as agreement on how to share revenues from trade-remedy penalties levied on third countries.

A customs union with sectoral exemptions would realize many long-term benefits with fewer practical and political challenges.

A customs union in specific sectors, as already is the case for computers and parts, or a basic customs union which allowed exceptions, would yield some of the expected benefits of an economy-wide customs union, with fewer adjustment costs and other attendant challenges. For iron, steel and several other industries, Canadian and the U.S. tariff rates against third countries are already similar and, therefore, sectoral tariff harmonization would not require large changes, though reconciling FTAs and other special arrangements would still be necessary. Industries where tariff schedules converge for Canada and the U.S. *and* where rules of origin costs are high would be appropriate priority candidate sectors. Since the U.S. rejected Canada's proposal for sectoral FTAs in 1983, prior to negotiating the Canada-U.S. FTA, this approach might be more politically achievable as part of a larger package of initiatives. Alternately, where tariffs are already at nearly the same level, rules of origin could be eliminated without harmonizing tariffs and

4 Though NAFTA rules of origin requirements would be eliminated, both countries would have to accept rules of origin requirements in each other's bilateral FTAs, as discussed in more detail later.

5 An antidumping (AD) law provides for the imposition of additional duties on an imported product that is sold below its normal value (usually the home-market price of an identical or similar product) or below its cost of production. A countervailing duty (CVD) law imposes additional duties to offset certain types of subsidies provided to the foreign producer by its government.

coordinating trade policy positions, though this would limit the number of candidate sectors.

Background

Before evaluating the merits and challenges of establishing a Canada-U.S. customs union, I briefly discuss the overall concept of customs unions and the broader trade context.

Customs Unions

A customs union is the next formal stage of economic integration after an FTA.[6] In an FTA, participating countries abolish internal trade barriers but maintain respective national trade barriers against non-member countries, subject to the provisions of the World Trade Organization (WTO). All FTAs have rules that establish whether goods originate in the partner countries and can enter duty-free. In the absence of rules of origin, exporters from non-NAFTA countries would have an incentive to ship their goods into the NAFTA country with the lowest tariff and trans-ship them into the higher-tariff nations. Box 1 describes rules of origin in NAFTA and other Canadian arrangements.

In a customs union, member countries adopt common trade barriers against the rest of the world and eliminate barriers among themselves. WTO rules on what qualifies as a customs union require only the creation of a common external tariff. A common external tariff abolishes incentives to circumvent a higher tariff, eliminating the need for rules of origin and simplifying customs inspection at the border.

A common market builds on a customs union and in addition allows for the free circulation of people, capital and technology. An economic union builds on a common market and requires harmonizing domestic tax, fiscal and monetary policies.

This paper considers the creation of several stylized variants of a customs union:[7]

1 Sectoral: Negotiate a common external tariff in only some sectors initially;
2 Basic: Negotiate a common external tariff for all goods;
3 Deep: Negotiate a common external tariff and common trade and commercial policies.

Existing customs unions illustrate these variants, as well as the fact that customs unions can evolve in different ways. The European Economic Community began with a common market for coal and steel, then expanded to a full customs union and is now an economic union. The European countries eliminated AD and CVD penalties among themselves when they negotiated the customs union. The Mercosur — the Southern Cone customs union composed of Argentina, Brazil,

6 For a more detailed discussion of the formal stages of economic integration, see Dobson (2002).

7 These three variants are adapted from Dobson (2002).

*Box 1: Rules of Origin**

In all its FTAs and other preferential arrangements, Canada has rules that determine where goods originate. For example, a good is determined to originate from the NAFTA countries — and is therefore eligible for the NAFTA tariff rate — if it satisfies one of the following criteria set out in Chapter 4 of the NAFTA:

1 it is wholly obtained or produced within the NAFTA bloc
2 it meets the origin criterion specified in Annex 401 of NAFTA (generally requires a) a minimum use of regional materials in the production of the good, or b) that the non-originating materials used in the production of the good are transformed in the NAFTA country to qualify for a new tariff classification)
3 it is produced within the NAFTA bloc wholly from materials originating from the bloc
4 it is an unassembled good or a good classified with its parts that does not meet 2) but contains either 50 percent or 60 percent regional content (depending on the method used to assess regional content).

For certain products, special rules apply. For example, computers originate and qualify for preference if they contain motherboards made in North America. Most textile and apparel items originate if they contain North American yarn. Cars and trucks originate if they contain 62.5 percent North American content, and computer monitors and most colour television sets must contain a North American picture tube to qualify.

Exporters must complete a certificate of origin to certify that the goods imported qualify for NAFTA preferences. The importer then provides this certificate to customs officials. Exporters or producers who prepare certificates of origin are required to keep these records for five years.

Rules of origin in the Canada-Chile and Canada-Costa Rica FTAs are largely modeled on those in NAFTA. Goods from developing countries that do not have FTAs with Canada also have to meet origin requirements to qualify for special tariff rates.

In addition to these preferential rules of origin, Canada also maintains non-preferential or MFN rules of origin to determine if goods are eligible for MFN rates, or whether they must pay general tariff rates — applied to goods from countries with which Canada does not have normal trading relations. At least 50 percent of the cost of production of the goods must have been incurred in one or more MFN partners for them to be considered of MFN origin. Other MFN rules apply for textiles and clothing: for textiles, the origin is deemed to be where the fabric was woven; clothing originates where the parts of the garment are first sewn together, or where a knitted garment is first fitted to shape (WTO, 2003).

* For a more complete discussion of how rules of origin work in NAFTA, see *NAFTA Rules of Origin: Making the NAFTA Origin Determination*. U.S. Trade Information Center. http://web.ita.doc.gov/ticwebsite/naftaweb.nsf and also Morici (1993).

Uruguay and Paraguay—established a common external tariff in 1995, but declared a significant number of country-specific and Mercosur-wide sectors exempt initially. The Andean Pact countries — Bolivia, Ecuador, Columbia, Venezuela[8] — began as an FTA and later established a common external tariff. The Southern African Customs Union — composed of South Africa, Botswana, Lesotho, Namibia and Swaziland — has both a common external tariff and a common excise tariff. The common trade and tariff policies have historically been determined by South Africa, though this process has widened in recent years.[9]

Canada-U.S. Trade

The United States and Canada have the world's largest bilateral trading relationship. In 2002, Canada exported $346 billion in goods to the United States, and imported roughly $218 billion; fully 85 percent of Canadian goods exports go to, or through, the U.S., representing about 35 percent of Canadian GDP. Canada buys 72 percent of its goods imports from the United States, while 23 percent of all U.S. merchandise exports are sold to Canada, with 19 percent of the goods the U.S. imports coming from Canada. The two countries are considered to be *natural trading partners* because they have a much larger share of trade among themselves than would be expected on the basis of their individual shares of world imports (Appiah, 1999). This was true before the Canada-U.S. FTA and remains so today.

The nature of these large trade volumes is significant when discussing the effects of a customs union. Much Canada-U.S. trade is in intermediate goods. A typical example is the export of U.S.-made engines for car assembly in Canada. Also, nearly one-half of the growth in Canadian exports between about 1970 and 1990 was vertical specialization-based trade — in other words, trade in which countries perform particular stages of a good's production. Increased use of imported components and narrowing of production activities has been a characteristic of the Canadian economy over the last two decades (Feenstra, 1998). As I will elaborate, NAFTA rules of origin impinge primarily on Canadian companies that export intermediate components to U.S. final-goods producers and to those that source intermediate materials globally and export their products within NAFTA.

The Larger Context

Canada's involvement in nearly 70 years of bilateral and multilateral negotiations, combined with market-led Canada-U.S. economic integration, resulted in MFN tariffs for both Canada and the U.S. declining and converging significantly.[10]

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8 Peru was incorporated into the FTA but opted out of the customs union.

9 U.S. Department of Commerce, from http://strategis.ic.gc.ca/SSG/da90228e.html, accessed April 23, 2003.

10 An additional explanation for the decline in tariffs is that member countries in an FTA face incentives to lower their external tariffs on intermediate components obtained from third countries in order to improve their comparative advantage in the FTA (Appiah, 1999).

Canada and the U.S. apply MFN rates against imports from all countries with which they have normal trading relations and no preferential agreements.

Chemical tariff schedules, for example, are fairly similar because both countries are implementing the WTO's Chemical Tariffs Harmonization Agreement. That accord harmonizes most chemical tariffs at 5.5 percent-to-6.5 percent, though there are still a number of differences with respect to raw materials (Canadian Chemical Producers' Association, 2002). Also, the U.S. and Canada, among other countries, agreed to reduce MFN rates to zero in a number of areas as part of the Uruguay Round of multilateral trade liberalization. Those areas included agricultural equipment, beer, certain chemicals, construction equipment, distilled spirits (brown), furniture, medical equipment, paper, pharmaceuticals, steel and toys. Similarly, the WTO's Information Technology Agreement eliminates duties on IT products covered by the agreement.

Both countries have a large stake in multilateral trade liberalization, which, if fully achieved — that is, with the elimination of all tariffs — would render all customs unions obsolete. Significant progress at the multilateral level, however, is likely only in the longer term. A customs union in the interim should be viewed as a parallel process rather than as a replacement for current multilateral negotiations, not least because continuation of the multilateral process reinforces convergence of bilateral tariffs.

Potential Effects of a Customs Union

I review here both the theoretical and limited available empirical evidence on the expected trade and welfare effects of moving from an FTA to a basic customs union. According to most available evidence, on balance Canada's economic welfare is likely to increase.

Welfare and Economic-Efficiency Effects

Whether a customs union raises a country's welfare and increases economic efficiency depends on the extent to which the arrangement results in trade creation, rather than trade diversion. Both FTAs and customs unions have the potential to increase a country's overall welfare if they create trade that would not have existed otherwise, so that supply is provided by a lower-cost producer. This results in cheaper components for producers and lower prices and more choice for consumers. Both FTAs and customs unions may, on the other hand, divert trade from low-cost sources of supply outside the arrangement towards higher-cost sources within the union, reducing overall welfare. Though this protects higher-cost suppliers, producers face higher component prices and consumers face higher final prices as a result.

There are several reasons why trade-creation benefits are likely to exceed trade-diversion costs in a Canada-U.S. customs union. First, Canada and the U.S. are natural trading partners and therefore likely each other's lowest-cost sources of supply. The larger the share of trade pre-existing among customs-union partners,

the more likely is net trade creation and, therefore, the more likely is a customs union to raise welfare (Krueger, 1995 and Lipsey, 1960).

Second, current Canadian and U.S. tariffs tend to be either very high in certain politically sensitive sectors, or very low due to years of bilateral and multilateral trade liberalization. When tariffs are very high, there is little trade to divert, and when tariffs are very low, the cost of diversion is low (Krueger, 1995).

Third, average Canadian or U.S. tariff rates are unlikely to rise, while a harmonized external tariff that increased average rates would result in greater trade-diversion costs. Most Canadian and U.S. MFN tariff rates are what the WTO calls "bound", so that if one partner wants to raise its rates, GATT/WTO provisions require that it compensate its trading partners. This compensation normally occurs through other rates that are lowered to the level of the partner's rates. The resulting common tariff structure "...shall not on the whole be higher or more restrictive than the general incidence of the duties and regulations of commerce applicable in the constituent territories prior to the formation of such union... ."[11] Tariff rates could, therefore, rise for some goods, though average rates are unlikely to climb. As well, because of the asymmetries between Canada and the U.S., Canada is more likely to harmonize its rates to those of the U.S. than vice versa. Because average Canadian rates are higher than U.S. rates, in general a customs union would involve lowering those levies.[12] Therefore, if a customs union were negotiated successfully, average rates would likely fall or stay the same.[13] If average Canadian or U.S. rates fell, this would decrease the potential trade-diversion costs and could promote increased trade with non-North American countries. Even if average rates remained flat, a customs union is more likely to minimize trade-diversion costs than an FTA because rules of origin in an FTA can divert trade, an issue discussed in the next section.

Though trade-diversion costs are likely to be low, trade could still be diverted when one country imposed trade-remedy penalties and the other did not. This possibility would be eliminated in a customs union with a common trade-remedy regime.

Benefits of Rules of Origin Elimination

To reiterate, unlike customs unions, all FTAs have rules that establish the origin of goods to determine whether they are eligible for preferential rates. Krueger (1995) says that NAFTA rules of origin are no longer required to dissuade exporters from circumventing the higher-tariff country and are used rather as protectionist tools that create distortions in world trade. The costs of this protection are high. These

11 GATT Article XXIV:5(a).

12 There would be some situations where U.S. rates are higher than Canadian rates. In those cases, U.S. producer lobbies are likely to be strong and unwilling to agree to lower tariffs, and Canada might, therefore, have to raise its tariffs, with consequences for domestic businesses and consumers.

13 Bandyopadhyay and Wall (1999) find that when two countries have asymmetric lobbying power — as is the case between Canada and the U.S. — a customs union always results in at least one country's tariffs rising, suggesting that it might be difficult to negotiate a Canada-U.S. tariff under WTO constraints. Their results are not definitive because they use a partial equilibrium approach.

rules result in greater administrative costs, more complicated border inspections, less predictability, lower levels of trade and investment, higher component prices for producers and higher prices for consumers. Customs pre-clearance before reaching the border does not eliminate these costs; companies still must submit rules of origin paperwork.

As shown in Box 1, qualifying for NAFTA tariff rates generally requires proof that a share of inputs originates from the NAFTA countries. These rules create incentives for NAFTA producers to rely on North American intermediate goods even if other sources are available at a lower cost. In other words, rules of origin may divert trade. The WTO notes in its 2003 trade-policy review of Canada that NAFTA rules of origin may have increased trade diversion in favour of NAFTA partners, notably for clothing and auto parts, both of which have restrictive rules of origin. In order to enter NAFTA duty-free, cotton clothing and some manmade fibres must be made from North American cloth made from North American thread that was made from North American fibres (Morici, 1993). Estevadeordal and Suominen (2003) find that regimes with restrictive and complex rules of origin discourage aggregate trade flows, and that restrictive rules on final goods may result in trade diversion in intermediate goods. They also find that NAFTA rules of origin are relatively more complex and restrictive than rules in European, Asian, African, and Middle Eastern free trade agreements. Stringent rules of origin moderate the potential of NAFTA to boost intra-NAFTA trade by increasing the cost of component prices for producers, reducing final goods production and resulting in higher end-product prices for consumers.

Among the benefits of a customs union are dynamic gains from increased competition and economies of scale.

Another consideration is that rules of origin impose administrative costs on exporters. An entirely new business developed post-NAFTA to help exporters complete the necessary paperwork and filing to prove that their goods were produced in the NAFTA countries. Each exporter has to evaluate information on NAFTA rules of origin, tariff schedules in the three NAFTA countries, the availability and sources of intermediate inputs and the customs procedures in all the NAFTA countries. NAFTA's Annex on rules of origin is approximately 200 pages, it is complex and it covers a wide range of technical measures. Estimates of rules of origin administrative costs under the European Free Trade Association-European Community FTA range from 1.4 percent-to-5.7 percent of the value of export transactions, using company-level data.[14] Applying these percentages to Canada's domestic exports to the U.S. and Canada's imports from the U.S. for 2002, the two countries could save as much as $8 billion-to-$31 billion annually by eliminating rules of origin administrative costs. Looking at Canadian domestic exports to the U.S. alone, this translates into $4 billion-to-$18 billion of annual benefits.

Another way to assess the costs of complying with NAFTA rules of origin is to do so indirectly, using a so-called revealed-preference mechanism. NAFTA exporters can either submit rules of origin and other NAFTA paperwork, verifying their eligibility for the NAFTA tariff rate, or pay MFN rates and avoid complying with NAFTA rules. If all companies in a particular sector export their goods under NAFTA, the benefit of the NAFTA rate is revealed to be larger than compliance

14 As cited in Cadot et al. (2002).

Table 1: Attractiveness of Options Available to Canadian Exporters to U.S.: NAFTA Utilization Rates, U.S. MFN and NAFTA Tariff Rates, and Rules of Origin Restrictiveness Index

Description	NAFTA Utilization Rates for Canadian Exports 2002 (%)	Simple Average U.S. Applied Tariffs 2000 (%) MFN (A)	NAFTA (B)	Preference Rate (A – B)	Rules of Origin Restrictiveness Index (out of 7)
Live animals	46	12.2	7.7	4.5	6.0
Vegetables	75	3.9	0.6	3.3	6.0
Fats & oils	98	4.2	0.3	3.9	6.0
Food, bev. & tobacc.	59	13.2	5.3	7.9	4.7
Mineral products	49	0.5	0.0	0.5	6.0
Chemicals	32	4.4	0.0	4.4	5.3
Plastics	93	3.8	0.0	3.8	4.8
Leather	58	4.9	0.0	4.9	5.6
Wood	17	2.3	0.0	2.3	4.0
Pulp & paper	26	0.8	0.0	0.8	4.8
Textile & clothing	95	10.2	0.0	10.2	6.9
Footwear	72	13.5	0.0	13.5	4.9
Stone, glass, cement	57	5.0	0.0	5.0	4.9
Jewelry	15	3.0	0.0	3.0	5.3
Base metals	65	2.7	0.0	2.7	4.6
Machinery	41	1.6	0.0	1.6	3.2
Transport. equip.	88	2.6	0.0	2.6	4.8
Optics	45	3.1	0.0	3.1	4.0
Arms	26	1.7	0.0	1.7	4.7
Miscellaneous	15	3.3	0.0	3.3	5.1
OVERALL	*55*	*5.5*	*0.8*	*4.7*	*5.1*

Sources: U.S. International Trade Commission, WTO (2001), Cadot et al. (2002), author's calculations.

costs. In that case, the difference between MFN and NAFTA rates indicates an upper bound on compliance costs as a percentage of exports. If all companies in a particular sector send their goods under MFN provisions, rather than the NAFTA ones, then the difference between MFN and NAFTA rates represents a lower bound on compliance costs. Using this approach, Cadot et al. (2002) estimate rules of origin-related administrative costs at 2 percent of Mexican exports to the U.S. market.

To estimate these costs for Canadian businesses, I start by calculating NAFTA utilization rates for U.S. imports from Canada overall and by sector for 2002[15] to measure the attractiveness of exporting goods under the NAFTA vs. MFN.

Table 1 compares these utilization rates to the alternative tariff rates facing NAFTA exporters to the U.S., and to assessments from Estevadcordal and Suominen (2003) on the restrictiveness of NAFTA rules of origin.[16] The

15 This follows the methodology of Cadot et al. (2002). I use data on U.S. imports for consumption from the U.S International Trade Commission. Sectors correspond to the Harmonized System chapters. Since practically all goods are eligible for NAFTA, I calculate NAFTA utilization rates as the customs value of goods that enter under NAFTA, divided by the value of goods that enter under other regimes. These include tariff lines with zero MFN rates.

16 Simple average MFN and NAFTA rates are used here because they are easily available; however, trade-weighted rates or more highly disaggregated rates would give a more precise picture. The preference rate column in Table 1 should therefore be interpreted with caution. The restrictiveness index values are also unweighted. As well, the restrictiveness measure is based on the text of NAFTA itself so would not capture changes to the rules of origin in the intervening years.

restrictiveness measure is an index out of 7, with higher values assigned to those products that face greater and more complex requirements.

The table shows that, of Canadian exports to the U.S., 55 percent by customs value enter the United States under NAFTA. At first glance, this might seem low but since one-third of all U.S. MFN tariffs are zero, there is no incentive for those goods to enter under NAFTA.

NAFTA utilization rates fluctuate considerably among sectors and also within them. Transportation equipment, fats and oils, textiles, clothing and plastics have the highest NAFTA utilization rates. High use of the NAFTA rates in these sectors suggests that the benefit is larger than administrative compliance costs. The differences between average NAFTA and MFN rates vary from 10.2 percent for textiles and clothing to 2.6 percent for transportation equipment, suggesting that NAFTA administrative costs cannot be higher than 10.2 percent of the value of exports.

With the relatively large benefit of exporting under NAFTA rates in these industries, why are utilization rates still under 100 percent? For textiles and clothing, where the average NAFTA rate is zero and over 10 percent lower than the average MFN rate, some exporters still choose not to enter under NAFTA. A possible explanation is the prohibitive rules of origin for textiles and clothing, which receive a value of 6.9 out of 7.0 on the restrictiveness index. Therefore, even where NAFTA rates represent a sizable benefit over MFN rates, they are offset by restrictive rules of origin, which reduce the benefits of preferential access for Canadian producers.

Eliminating rules of origin would increase predictability for investors and might reduce the bias in favour of investment in the U.S. over Canada.

A number of significant sectors have utilization rates of less than 50 percent, including chemicals, pulp and paper and machinery. In these sectors, relatively low use of the NAFTA regime suggests that compliance costs are higher than the benefit of NAFTA rates. The difference between MFN and NAFTA rates for these industries — which ranges from 0.5 percent-to-4.5 percent — indicates that the expense of complying with NAFTA administrative costs is unlikely to be lower than 0.5 percent of the value of Canadian exports. Where Canadian and U.S. MFN tariffs are already low, rules of origin are not as significant constraints on commerce.

Some sectors with higher MFN than NAFTA rates have lower NAFTA utilization rates than might be expected. This could be explained by rules of origin. For example, transportation equipment faces a smaller difference between NAFTA and MFN rates than leather goods, though the NAFTA utilization rate for transportation equipment (88 percent) is much higher than for leather goods (58 percent). The rules of origin restrictiveness index ranks transport equipment as a 4.8 out of 7.0, compared with leather goods, which rank a more restrictive 5.6. The strictest rules of origin are in milk, sugar, peanuts, fruits, vegetables, textiles and apparel, automotive products and electronic components (Morici, 1993). These sectors lobbied for tougher protection in the NAFTA negotiations.

Another major cost of rules of origin is that they decrease predictability for both traders and investors. Eliminating these requirements could possibly reduce the bias towards investment in the U.S. over Canada (Harris, 2001). Currently, producers who find the rules of origin prohibitive may choose to locate plants in the U.S. for production of intermediate goods, where they can also be transformed into final goods and sold in the larger United States market. Another possibility is

that companies facing rules of origin in Canada and the U.S. — both capital-rich countries — shift production processes to Mexico to reduce labour costs, and source components from Canada, the U.S. and the rest of the world to produce final goods in Mexico (Appiah, 1999).

Rules of origin inspections also divert border resources away from other priorities, such as security. Hart (2002) says that a customs union would facilitate border traffic, enabling resources to redeploy to counter security risks.

Rules of origin do not affect all sectors, companies and partner countries equally. Businesses in Canada and Mexico bear costs of rules of origin disproportionately. U.S. companies can completely avoid rules of origin by producing an entire product and selling it in their larger home market. The welfare costs from rules of origin are therefore more serious for Canada and Mexico than for the United States (Appiah, 1999). NAFTA rules of origin impinge mostly on domestic companies that source intermediate goods globally and export within NAFTA, foreign companies located in NAFTA that source most of their intermediate components from outside the region and non-NAFTA companies that export into NAFTA. As product complexity increases and with it incentives to outsource, rules of origin will become more complex and therefore more costly for those companies dependent on internationally traded intermediate inputs. Also, small- and medium-size businesses have greater per-unit costs of meeting rules of origin because they have to spread the fixed administrative costs of meeting origin requirements over fewer units of production (Appiah, 1999).

Though there are differences among sectors, overall, the presence of NAFTA rules of origin dilute the economic gains from free trade. Because FTAs, with their rules of origin, are more likely to divert trade than customs unions, on welfare grounds a customs union is always Pareto-superior to an FTA (Krueger, 1995), meaning that at least some parties could be made better off, while none will be made worse off.

Other Effects

Other possible effects of a customs union include dynamic gains from increased competition and economies of scale. Also, a common external tariff that lowered some rates would help to diversify Canadian trade. Common tariffs could also facilitate the establishment of joint customs inspections, which would facilitate traffic of goods within North America.

Estimated Overall Effects

At least two studies estimate the impact of moving from NAFTA to a Canada-U.S.-Mexico customs union.[17] Brown et al. (2001) estimate the effects of moving from the NAFTA to a common external tariff under three different common tariff

17 I am not aware of any completed study that models the effect of moving to a Canada-U.S. customs union.

scenarios: simple average, trade-weighted and production-weighted.[18] As discussed earlier, the likeliest scenario under WTO constraints is one where tariffs on average decline or stay the same. Since U.S. tariffs tend to be the lowest of the three countries, this scenario is closest to the trade-weighted assumption. Under this assumption, Brown et al. estimate a decline in the relative price of Canadian exports compared to imports (its terms of trade)[19] and a relatively small decline in Canadian economic welfare of $800 million, equivalent to 0.1 percent of GNP. The effects range from a $700 million decline in GNP (0.1 percent of GNP) and a decline in Canada's terms of trade under the production-weighted common external tariff assumption to a $2 billion increase in GNP (0.3 percent of GNP) and expansion of Canadian trade under the simple average assumption.[20]

Brown et al. likely significantly underestimate the benefits of moving to a customs union because they do not include the effects of eliminating rules of origin. Also, the study looks only at static effects and does not take into account possible dynamic effects from increased economies of scale and foreign direct investment. The study should also be interpreted with caution because it assumes external tariffs are harmonized at a highly aggregated average sectoral rate rather than at the product level and because it assumes that average tariff rates can rise.

Establishing a customs union will undoubtedly create adjustment costs in some sectors.

Appiah's study (1999), though slightly dated, includes the effects of rules of origin elimination and estimates that the general equilibrium-efficiency costs to NAFTA countries of the rules of origin system are around 2 percent-to-3 percent of NAFTA GDP. This translates into roughly $23 billion-to-$34 billion of Canadian GDP, and $328 billion-to-$492 billion of U.S. GDP, using 2002 figures. Though this in itself is not necessarily evidence that a customs union would recoup all those costs, it represents an upper limit on the efficiency benefits of eliminating rules of origin. Appiah concludes that a North American customs union is better than NAFTA on welfare grounds if the common tariff rates are harmonized at reasonably low levels[21] — as might be expected under WTO constraints. He finds that a maximized common external tariff would divert trade and result in the lowest estimated welfare gains.

Establishing a customs union will undoubtedly create adjustment costs in certain sectors, though they are likely to be small. Appiah (1999) estimates that production and employment would increase across most industries, regardless of the tariff assumption. The exceptions are Canadian industries that face the most intense foreign competition, such as textiles, petroleum, ferrous metals, food processing, non-metallic minerals and most service sectors. These areas would experience decreases in output and employment. Brown et al. (2001) estimate that,

18 They use the Michigan Model of World Production and Trade, a computational general-equilibrium model.

19 In the Brown et al. (2001) model, tariff harmonization for all three NAFTA members would affect world prices of particular sectors because of the dominance of the U.S. in the global trading system. Therefore, even though Canada is not large enough in most sectors to influence world prices, it would experience terms of trade effects due to the change in U.S. tariffs.

20 These are permanent changes and the amounts should not be cumulated annually because they are based on a comparative statics experiment.

21 As opposed to the lowest possible levels, which he estimates do not lead to the largest welfare gains for Canada and Mexico.

under a production or trade-weighted common tariff, there will be small employment decreases in a similar list of Canadian sectors, including mining, textiles, wearing apparel, leather products, footwear and services sectors, with increases in employment in all other sectors.

Taken together, theory and available empirical studies suggest tentatively that moving from an FTA to a Canada-U.S. customs union is likely to result in greater trade creation benefits than diversion costs, benefits from rules of origin elimination that nevertheless vary across industries, greater predictability for traders and investors and overall increases in trade and economic welfare (when rules of origin are taken into account), with small adjustment costs. Presumably, sectoral external-tariff harmonization would secure some of these benefits with fewer adjustment costs and a deeper customs union would further reduce paperwork at the border and trade diversion associated with trade-remedy penalties.

Setting up a Customs Union

A Basic Customs Union

Canada and the U.S. could embed a customs union in NAFTA with an exchange of letters, just as the Canada-U.S. FTA was brought into NAFTA (Mirus, 2001). The two countries would negotiate to arrive at a common external tariff.

A common external tariff involves harmonizing all Canadian and U.S. tariff rates applied to other countries. In practice, the relative importance of each of these rates depends on whether the goods in question tend to be sourced from within NAFTA, from developing countries, or from other countries. Table 2 shows the main tariff provisions that the two countries would have to reconcile. The table also includes bilateral agreements that are currently being negotiated or where preliminary talks are being held.

As the table shows, the two countries would have to reconcile their MFN rates, as well as preferential rates extended to developing countries and those for countries with which Canada or the U.S. has a bilateral FTA or other preferential arrangements. They would also have to reconcile rates on Mexican agricultural exports because the agricultural provisions of NAFTA were not negotiated trilaterally — that is, Canada and Mexico have separate agreements with the U.S. on agriculture.[22]

There are several similarities between the Canadian and U.S. lists of actual and expected preferential agreements. For example, both countries have negotiated FTAs with Chile and with Israel. The U.S. recently signed an FTA with Singapore and Canada is pursuing an FTA with that country, as well. Canada applies a preferential rate on some goods from Australia, and the U.S. is negotiating an FTA with that country. Other similarities between the two countries are shown in Table 2. Both countries are also involved in negotiations towards a Free Trade Area

22 In principle, a customs union would also involve eliminating tariffs between Canada and the U.S. on agriculture, which was not fully liberalized under NAFTA.

Table 2: Main Tariff Rate Categories That Would Need to be Reconciled to Establish a Common Canada-U.S. External Tariff (as of May 2003)

U.S.	Canada
Most Favoured Nation (MFN)	Most Favoured Nation (MFN)
U.S. - Israel FTA	Canada - Israel FTA
General preferential tariff rate*	General preferential tariff rate*
Least developed country rate / Africa Growth and Opportunity Act	Least developed country rate
Mexico rate	Mexico rate
U.S. - Chile FTA	Canada - Chile FTA
Caribbean Basin Initiative / Caribbean Basin Trade Partnership Act	Commonwealth Caribbean Countries/ Canada - Caribbean Community and Common Market FTA under consideration/ Canada - Dominican Republic FTA under consideration
Special rates applied to Cuba, Laos, North Korea, Serbia-Montenegro	Special rates applied to Libya and North Korea
Andean Trade Preference Act	Canada - Andean FTA under consideration
U.S. - Singapore FTA	Canada - Singapore FTA negotiations underway
U.S. - Australia FTA negotiations underway	Canada - Australia preference rate
No similar comparator	Canada - New Zealand preference rate
U.S. - Central America (Costa Rica, El Savador, Guatemala, Honduras and Nicaragua) negotiations underway	Canada - Costa Rica FTA; Canada - Central American-4 (El Salvador, Guatemala, Honduras and Nicaragua) negotiations underway
U.S. - Morocco FTA negotiations underway	No similar comparator
U.S. - South African Customs Union FTA proposed	No similar comparator
U.S. Jordan FTA	No similar comparator
U.S.-Bahrain FTA proposed	No similar comparator

* Applies to developing countries.

Sources: U.S. International Trade Commission Tariff Database; Finance Canada; US Trade Representative website; Department of Foreign Affairs and International Trade website.

of the Americas. Importantly, even where Canada and the U.S. have signed FTAs with the same countries, those FTAs contain different obligations. The Canada-Chile FTA, for example, applies to fewer categories of goods than the U.S.-Chile FTA.

There are also a number of significant differences between the two country's lists. For example, the U.S. has an FTA with Jordan and is pursuing FTAs with Morocco and the South African Customs Union. The U.S. announced in May that it intends to establish a U.S.-Middle East FTA within a decade and later in May Washington said it opened discussions on a U.S.-Bahrain FTA. Canada and the U.S. have different lists of countries with which they do not have normal trading relations, and which are therefore not eligible for MFN tariff rates. Canada applies higher than MFN rates — around 35 percent — on most goods from North Korea and Libya, while the U.S. applies tariffs averaging about 40 percent on goods from Cuba, North Korea, Serbia, Montenegro and Laos.

Both countries would also have to reconcile rules of origin in each other's bilateral FTAs. Rules of origin are not identical even for agreements with those countries that have signed FTAs with both Canada and the U.S., though the agreements signed by the two countries tend to be based on the NAFTA model.

While logistically problematic, reconciling rules of origin in bilateral FTAs would affect relatively small amounts of Canadian trade — and proportionally small amounts of U.S. trade — because most Canadian trade takes place with the U.S. As the U.S. and Canada both pursue bilateral FTAs, increasingly with different sets of countries, reconciling these rules will become more complex.

Under a Canada-U.S. customs union, NAFTA rules of origin would still apply to Mexico-U.S. and Mexico-Canada trade. Including Mexico in a North American customs union would complicate its negotiation and implementation considerably as a result of Mexico's 11 FTAs. Mexico has signed FTAs with the European Union, Venezuela-Colombia, Bolivia, Chile, Costa Rica, Israel, Nicaragua, Iceland-Norway-Switzerland-Lichtenstein and Guatemala-El Salvador-Honduras. It is negotiating an FTA with Singapore and also began talks on an FTA with Japan. Taking its FTA with the EU as an example, in order to implement a North American customs union, either the EU would have to extend its FTA with Mexico to Canada and the U.S., and Canada and the U.S. would have to accept the rules of origin in the Mexico-EU agreement, or Mexico would have to abandon its FTA with the EU.

A basic customs union would eliminate most NAFTA rules of origin, though not all if trade-remedy laws were still used independently by each country. If one country in the customs union chose to impose temporary AD duties, while the other did not, in the absence of rules of origin there would be an incentive to ship the good to the non-imposing country to circumvent the penalty and then re-export to the other. Harris (2001) suggests dealing with this by labelling goods produced within NAFTA or imported and subject to the common external tariff as "NAFTA goods" and exempting them from border procedures, while goods subject to the AD penalty would not be exempt.

More coordinated trade and commercial policies would reduce impediments to cross-border trade and provide for a more effective customs union.

An alternative is for, say, Canada to notify U.S. trade-remedy authorities in the event of an AD and CVD action against a third party or vice versa. The notified country could then choose whether to accept the finding. Acceptances could further reduce the number of cases where it would be necessary to maintain rules of origin.[23]

Because tariff rates are set at the highly disaggregated 8-digit level of the Harmonized System, while the Canadian and U.S. classifications are only comparable at the more aggregated 6-digit level, the two countries would presumably have to reconcile their descriptions and rates at the 8-digit level. Currently, the U.S. has more than 3,000 more tariff lines than Canada, so this would be a large task. If Canada were to harmonize to the U.S. code, this would complicate the process for exporters rather than simplifying it. Alternately, the two countries could commit to a common tariff-simplification exercise.

For trade currently subject to quotas in either country, Canada and the U.S. would have to develop a common Canada-U.S. quota and agree on how to administer it, or both could eliminate their quotas altogether. Canada imposes quotas on selected imports that often are quite different from those the U.S. targets.

Canada and the U.S. would also have to agree on how to share tariff revenue. In the European Union, that revenue is allocated to the central budget, which is not an option in the Canada-U.S. case. Customs and excise duties collected in the

23 I am grateful to Rolf Mirus for this suggestion.

South African Customs Union go into South Africa's national revenue fund and are then shared among SACU members under a revenue-sharing agreement. The revenue-sharing formula is based on each country's portion of total intra-SACU trade, including re-exports, GDP and a percentage of the total excise pool is distributed to all members based on the inverse of each country's per-capita GDP.[24] A Canada-U.S. tariff revenue-sharing agreement could be based on a similar formula, or on best practices in revenue sharing in international organizations, such as international reserve allocations at the International Monetary Fund (Mirus and Rylska, 2002). Tariff revenue is not a major source of government income in either the U.S. or Canada — tariff revenue in 2000/2001 accounted for 1.5 percent of total Canadian budgetary revenue (WTO, 2003). As a result, while logistically challenging, this should not be a substantive concern.

A more serious consideration is the impact of a customs union on the overall trade-policy independence of both Canada and the U.S. Once a common external tariff is negotiated, any further changes would have to be jointly decided. As a result, Canada and the U.S. would have to coordinate their positions relating to tariffs at multilateral and other trade-agreement negotiations.

Implementation of the customs union could take place over several years, covering, say, autos, steel and some manufactures in the short term, textiles in the medium term and agriculture over a longer period.

A Deeper Variant

Under a basic customs union, not all border measures would be eliminated. Although the WTO only requires a common external tariff for the establishment of a customs union, more coordinated trade and commercial policies would further reduce impediments to cross-border trade, and provide for a more effective union. A deeper variant might include common commercial-policy features in addition to tariffs and quotas. These could include export subsidies, technical regulations and other non-tariff barriers to trade. Hart says that to ensure the free circulation of goods and perhaps services between Canada and the U.S. under a customs union, the countries might accept full reciprocity in the administration of government procurement regulations, pursue many more mutual-recognition agreements and orchestrate a range of similar policies. More robust institutions might also be necessary to implement the rules and govern the new agreements.

Other features could include a common competition policy or trade-remedy regime. A common competition policy could replace the need for, and application of, AD laws between Canada and the U.S. (Mirus and Rylska, 2002). Under a common competition tribunal, dumping would be dealt with through predatory pricing provisions, which have a much narrower scope than dumping laws.[25] Temporary relief from import surges that threaten an industry's survival could be dealt with under Article 19 of the GATT/WTO. Alternatively, the two countries

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24 Department of Foreign Affairs, Government of South Africa. http://www.dfa.gov.za/for-relations/multilateral/sacu.htm. Accessed April 22, 2003.

25 Note that the use of AD and CVD between Canada and the U.S. now tends to be confined to the natural-resource sectors.

might retain their domestic competition regimes but subject member-country companies to each other's antitrust bodies. The U.S. Federal Trade Commission might scrutinize exports originating in Canada for anti-competitive practices and the Canadian Competition Bureau could deal with goods originating in the U.S. The advantage of such approaches is that they are likely to result in many fewer cases. Mirus and Rylska (2002) cite studies showing that more than 90 percent of AD cases would not have led to antitrust proceedings on competition grounds.

A customs union with a common system of trade-remedy laws would eliminate the use of these laws between members of the union,[26] advancing what was a key Canadian goal at the Canada-U.S. FTA negotiations. A complication would be the sharing of revenues from AD and CVD actions.

A complication would be the sharing of revenues from AD and CVD actions. The United States *Continued Dumping and Subsidy Offset Act* of 2000 (more commonly known as the Byrd Amendment), though it has been ruled inconsistent with WTO rules, is still in place and allows for domestic producers supporting AD and CVD investigations to receive the duties. Even if the U.S. complies with the WTO ruling, a customs union would have to determine a way to deal with those administrative revenues.

A deeper customs union would require much closer trade policy coordination between the two countries than a basic union.[27]

A More Limited Variant

Harris[28] and Dobson (2002) say that if an economy-wide customs union is not possible, Canada and the U.S. could adopt common external tariffs in specific sectors. According to Dobson, this "evolutionary customs union" could involve monitoring sectoral tariffs and when they converge, adopting common external tariffs and eliminating NAFTA rules of origin requirements. Harmonizing MFN tariff levels to the lower of the two countries — if this is the approach taken — does not need any notification to, or scrutiny by, the WTO. Canada and the U.S. would presumably have to coordinate their positions on further tariff reductions — either at the WTO or in other trade negotiations — in those sectors that were part of the customs union. A sectoral approach could be packaged with the elimination of AD and CVD in the chosen sectors.

The NAFTA already has a de facto sectoral customs union with a common external tariff in "certain automatic data-processing goods and their parts."[29] When those products and components with a common external tariff enter a NAFTA

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26 In the United States, the finding of dumping is currently made by the Department of Commerce and the finding of injury by the International Trade Commission. In Canada the finding of dumping is made by the Canada Customs and Revenue Agency and the finding of injury by the Canadian International Trade Tribunal.

27 A customs union that eliminated all border barriers might also impose constraints for Canadian tax policy (Kesselman, 2003).

28 Cited in Canada, 2002, p. 185.

29 See Annex 308.1 to Chapter 3 of the NAFTA. A common external tariff does not apply to some of the goods in this Annex until 2004. The U.S. information technology (IT) sector pushed for a...

country and are subsequently exported to another NAFTA nation, exporters do not have to fill out rules of origin paperwork to have duties waived on the goods.[30] MFN duties are paid once on any non-originating product or component on initial entry into NAFTA territory (Appiah, 1999).

Under a sectoral approach, Canada and the U.S. would have to develop a mechanism to identify promising candidate sectors. One possibility is to give this task to the U.S. Trade Representative's office and the Canadian Department of Foreign Affairs and International Trade. Another option, which might de-politicize the process, is to set up a commission to review tariffs and identify possible candidate sectors (Dobson, 2002).

Hufbauer and Vega (2003) suggest another intermediate option. Where Canadian and U.S. MFN rates are close, there is little incentive for exporters outside of Canada and the U.S. to ship into the lower-tariff country and then transship to the higher-tariff one. Therefore, rules of origin serve no purpose other than protecting domestic industry. Hufbauer and Vega suggest waiving NAFTA rules of origin, if the exporting country did not import a significant quantity of the affected goods at tariff rates more than, say, 1 percentage point lower than the MFN rates applied by the importing country.[31] Under this system, rules of origin would linger for many years. Individual country quotas would also remain. Each partner could still retain freedom to negotiate its rates in the WTO, the FTAA, and bilaterally and each would still retain the right to apply AD and CVD and other safeguard remedies. Another option is to agree to drop MFN tariffs to zero on intermediate goods only.[32]

Comparing Tariff Structures

How similar are the Canadian and U.S. tariff structures? This section considers average MFN rates for a number of sectors and takes a closer look at the more complete tariff structure in selected sectors. Those selected illustrate a unique challenge, are important export sectors, or have similar tariff structures for both countries.

According to Hart,[33] 40 percent of Canadian and U.S. MFN tariffs are within 1 percent-to-2 percent of each other. There are, however, important differences among and within sectors. Starting at a fairly aggregated level, Table 3 shows

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Note 29 - continued

...common external tariff on these products to be included in NAFTA because IT companies did not want to have to pay duties on globally sourced intermediate goods. Prior to NAFTA, these companies were able to import non-North American parts into, say, the U.S., pay the MFN duties, export the final product to Mexico or Canada and then get duty drawback on the original MFN duties. NAFTA Article 303 now restricts duty-drawback, providing a greater incentive for these companies to push for lower tariffs on their inputs.

30 AD duties are not a major concern in this industry.

31 The waiver procedure could be invoked on an annual basis by each importing company. Eliminating rules of origin for products where tariff rates are close might alternately be done through an amendment to NAFTA.

32 I am grateful to Rick Harris for this suggestion.

33 Cited in Canada, 2002, p. 183.

Table 3: Simple Average-Applied MFN Tariffs for Canada and U.S. (%)

	Canada (2002)*	United States (2000)
Total	*6.8*	*5.5*
By WTO Category		
Agriculture**	21.7	10.2
WTO Non-agriculture (exc. petroleum)	4.2	4.5
By International Standard Industrial Classification (ISIC) Sector		
Agriculture and fisheries	6.4	5.9
Mining	0.7	0.5
Manufacturing	6.9	5.6
By Harmonized System (HS) Section		
Live animals and products	55.6	12.2
Vegetable products	4.5	3.9
Fats and oils	9.3	4.2
Prepared foods, etc.	18.3	13.2
Minerals	1.1	0.5
Chemicals and products	3.2	4.4
Plastics and rubber	4.2	3.8
Hides and skins	3.2	4.9
Wood and articles	2.6	2.3
Pulp, paper, etc.	0.6	0.8
Textile and articles	9.8	10.2
Footwear, headgear	11.6	13.5
Articles of stone	3.4	5.0
Precious stones, etc.	2.3	3.0
Base metals and products	2.2	2.7
Machinery	2.0	1.6
Transport equipment	5.2	2.6
Precision equipment	1.9	3.1
Arms and munitions	3.9	1.7
Miscellaneous manufactures	5.2	3.3

* Excludes in-quota tariffs.

** Includes WTO ad valorem estimates of non ad valorem measures.

Source: WTO (2003), p. 31; WTO (2001), p. 30.

simple average-applied MFN rates for Canada and the U.S. by three different high-level breakdowns.[34]

Overall, average U.S. rates are lower than average Canadian rates, though this is not true across all industries. The largest differences between the two countries are in agricultural products, though there are a number of categories in which average rates are close.

Unfortunately, comparing the two tariff structures at a more disaggregated level is not as simple as lining them up against each other. Appendix A discusses the difficulties involved, such as the different types of tariffs applied. For those industry categories in which all Canadian and U.S. tariffs are both applied as ad valorem tariffs — that is, a percentage on the value of the good — Table 4

34 Canadian data are for 2002 and U.S. data for 2000, so they may understate the differences between the two countries if the U.S. reduced its MFN tariffs in the intervening years.

Table 4: Average MFN Tariffs for Selected* Sectors: Canada versus U.S. Listed in Order of Export Value (highest to lowest)

	U.S. MFN Rate (%)	Canadian MFN Rate (%)	Difference (Absolute Value) (%)	Canadian Domestic Exports to U.S. (2001) ($mn)	Share of Total Canadian Exports to U.S. (%)	Canadian Imports from U.S. (2001) ($mn)	Share of Total Canadian Imports from U.S. (%)
Motor vehicles	2.7	3.6	0.9	79140	19.66	45443	13.54
Nuclear reactors and machinery	1.3	1.7	0.4	26119	6.49	41895	12.49
Electrical machinery	2.0	2.4	0.4	16958	4.21	21952	6.54
Aircraft and spacecraft	0.2	1.9	1.7	9372	2.33	3695	1.10
Furniture, bedding, lamps, prefabricated buildings	2.3	5.7	3.4	7746	1.92	3403	1.01
Aluminum and its products	3.7	3.4	0.3	7160	1.78	3053	0.91
Iron and steel products	1.4	2.8	1.4	4976	1.24	2760	0.82
Rubber and its products	2.3	4.1	1.8	3684	0.92	3913	1.17
Wood pulp and recovered paper and paperboard	0.0	0.0	0.0	3389	0.84	463	0.14
Iron and steel	0.8	0.1	0.7	2984	0.74	2760	0.82
Pearls, precious stones and metals, coins	3.0	2.3	0.7	2956	0.73	1142	0.34
Inorganic chemicals	2.6	1.6	1.0	2073	0.52	1667	0.50
Copper and its products	2.1	1.6	0.5	1795	0.45	734	0.22
Pharmaceuticals	0.1	0.4	0.3	1735	0.43	3118	0.93
Fertilizers	0.0	0.0	0.0	1704	0.42	382	0.11
Railway trains, etc	4.7	5.8	1.1	946	0.24	1109	0.33
Ships, boats, floating structures	0.5	18.7	18.2	717	0.18	920	0.27
Nickel	2.2	0.2	2.0	647	0.16	126	0.04
Soap, lubricating products, waxes, candles	2.4	5.0	2.6	567	0.14	1241	0.37
Knitted or crocheted fabrics	10.4	7.8	2.6	497	0.12	268	0.08
Photographic or cinematographic goods	2.7	4.9	2.2	478	0.12	688	0.20
Fur and artificial fur	2.3	4.5	2.2	166	0.04	78	0.02
Raw hides and skins	2.4	1.9	0.5	148	0.04	102	0.03

* All sectors included for which ad valorem rates only are applied for both U.S. and Canada and for which annual domestic exports to the U.S. exceed $100 million.

Sources: U.S. International Trade Commission database; Finance Canada; author's calculations; Industry Canada Trade Data Online.

compares average MFN rates and also provides values and shares for 2001 Canadian domestic exports to the U.S. and imports from the U.S.[35] The categories shown in Table 4 represent about 44 percent of Canadian domestic exports to the U.S. and as much as 40 percent of imports from there.

Average rates in Canada and the U.S. in most of these categories are within 2 percent of each other.[36] Table 4 also shows that Canadian and U.S. MFN rates are very close in those sectors where trade is most important, such as motor vehicles and electrical machinery. The table leaves out a large proportion of industries for which tariff structures are not as easily comparable and which will be discussed further.

35 Tariff data are current as of January 1, 2003.

36 A notable exception is shipbuilding which has historically been highly protected.

Table 5: Products with U.S. MFN Tariffs Greater than 20 Percent versus Canadian MFN Rates for the Same Products

	U.S. MFN Rate*	Canadian MFN Rate*
	(%)	
Tobacco	350	0 to 13
Peanuts, peanut butter	44 to 164	0 to 6
Footwear	24 to 48**	0 to 20
Porcelain and glassware	21 to 38	0 to 7
Tuna	35	6
Brooms	32	11
Clothing	21 to 32	18 to 19
Dates	30	0
Bovine meat cuts and carcasses	26	0
Woven fabrics***	22 to 26	0 to 15
Trucks	25	6.1
Sweet corn	21	****
Dried onions	21	6

* This rate captures only those items in each product grouping with tariffs greater than 20 percent and the equivalent Canadian items in that grouping. U.S. items that could not be matched reasonably well to a Canadian equivalent are excluded. Only ad valorem rates are compared.

** Some footwear imports to the U.S. are subject to an additional rate of 90 percent multiplied by the quantity.

*** The U.S. rate on some woven fabrics includes an additional 4.8 percent multiplied by the quantity. Over quota, the Canadian rate is 26.5 percent.

**** The Canadian rate is 2.81¢/kg but not less than 12.5 percent plus 4 percent.

Sources: U.S. International Trade Commission database; Finance Canada; author's calculations.

Tariff Peaks and Tariff Rate Quotas

If Canada and the U.S. protected the same sectors with high tariffs, then converging to a common external tariff would be relatively simple. Sectors with high MFN tariffs and sectors protected by tariff-rate quotas[37] are often different in the two countries. Table 5 compares products for which U.S. MFN tariffs are greater than 20 percent to the Canadian rates for the same products.

The table shows that high U.S. MFN tariffs are concentrated in several areas, including peanuts, tobacco, textiles, clothing and footwear.[38] Canadian MFN rates in almost all of these sectors are considerably lower than U.S. rates, though Canada has high rates on textiles, clothing and footwear. Canada also has high MFN rates and dairy products, for which most tariffs are in the 200 percent-to-300 percent range (WTO, 2003), and for ships. Canadian dairy, margarine, turkey eggs and broiler-hatching eggs are protected by tariff-rate quotas, while the United States imposes tariff-rate quotas on beef, dairy products, sugar and some sugar products, peanuts, tobacco and cotton.

37 A tariff-rate quota is a quota for a volume of imports at a lower tariff. After the quota is reached, a higher tariff is applied on additional imports.

38 The U.S. imposes tariffs over 20 percent for several other categories including certain types of cheeses, olives and alcohol. These are not shown in Table 5 because there are no directly comparable Canadian categories.

Table 6: ***Tariff Structure for Selected Dairy Products***

	MFN Rate		Exempted from Duty		Special Provisions	
Description	**U.S.**	**Canada**	**U.S.**	**Canada**	**U.S.**	**Canada**
Milk and cream, unconcentrated, with no added sweeteners, fat content, by weight, not more than 1 percent	0.3%*Quantity	7.5% in quota; 241% but not less than $34.50/hl outside of quota	Least developed countries (LDCs), African Growth and Opportunities Act (AGOA), Caribbean Basin Initiative (CBI), Andean Trade Preference Act (ATPA), Israel, Jordan, Canada, Mexico	Least developed countries (LDCs), Chile, Costa Rica, Commonwealth Caribbean countries, U.S.	Cuba, Laos, North Korea, Serbia and Montenegro pay 0.5 cents per litre	Developing countries (including Mexico) pay 7.5% (except LDCs); special rates applied to Libya and North Korea
Yogurt (all items)	17 to 20%*Value; 17% on one item of yogurt in quota and 104% outside quota	6.5% in quota; 237.5% but not less than 46.6¢/kg outside of quota	Least developed countries (LDCs), African Growth and Opportunities Act (AGOA), Caribbean Basin Initiative (CBI), Andean Trade Preference Act (ATPA), Israel, Mexico (in most yogurt items), Canada (in most items)	Least developed countries (LDCs), Chile, Commonwealth Caribbean countries, U.S.	Jordan pays 6.8% on one category of yogurt; 17% multiplied by derived duty in another category; Developing countries excluded from duty in one category; Cuba, Laos, North Korea, Serbia and Montenegro pay 20% in quota (and $1.217/kg plus 20% for one category) and 122% out of quota	Special rates applied to Libya and North Korea

Sources: U.S. International Trade Commission database; Finance Canada as at January 1, 2003.

While these sectors represent small amounts of Canada-U.S. trade relative to other types of goods, they would cause significant political and logistical challenges with the negotiation of a common external tariff. Table 6 shows the tariff structures for two types of dairy products to illustrate some of these challenges.

Even in just these two categories, a common external tariff would require that Canada and the U.S. reconcile a number of differences. For one thing, Canada would most likely have to lower its MFN rate to the U.S. level, which is considerably lower than the Canadian one, and this would apply to its over-quota rate as well. For another, the two countries would have to reconcile provisions under their bilateral FTAs and special programs, such as the Andean Trade Preferences Act. Third, they would have to reconcile special provisions for Cuba and other countries. The first change would be a significant one with regional consequences, while the last two changes would not be as important because of the small amounts of trade that would be affected.

Textiles and Clothing

Even though MFN rates in both Canada and the U.S. are high on textiles and clothing, and similar in some cases, most imports do not enter under MFN rates. The important parts of the tariff structure that would have to be reconciled under a customs union are the special provisions for developing countries. In particular, the U.S. has special outward-processing rules on clothing. Under the *African Growth and Opportunities Act* (AGOA), for example, apparel imports made from U.S. fabric, yarn and thread are eligible for duty-free and quota-free treatment.[39] Similar provisions apply to goods from certain Caribbean and Andean countries. In January, Canada removed duties on apparel for least-developed countries (LDCs) — many which are also AGOA countries — but rates do not coincide for all countries and the provisions are less restrictive for imports to Canada. In order to be eligible for duty-free treatment, goods must be manufactured either in Canada or developing countries, provided at least 25 percent of the value added occurs in the LDC-exporting country. Harmonizing in this sector would presumably require Canada and the U.S. to agree on the same special provisions.

According to the Agreement on Textiles and Clothing (ATC), all Canadian and U.S. quotas on textiles and clothing must be eliminated by the beginning of 2005 and will therefore automatically be harmonized. A customs union is unlikely to be completed in the interim, so quotas in this sector would not be an impediment to formation.

39 According to the U.S. Trade Act of 2002, apparel imports made with African fabric and yarn are subject to a cap of 3 percent of overall U.S. apparel imports, growing to 7 percent of overall imports over an eight-year period.

Table 7: Canada and U.S. MFN Average Tariffs for Iron and Steel for which Average Rates Differ by Greater than Two Percent

	Average MFN Rates*		
	U.S.	Canada	Difference Between Canada and U.S (Absolute Value)
		(%)	
Ferronickel	0.0	6.5	6.5
Ferrosilicon	2.6	0.0	2.6
Ferrosilicon manganese	3.9	0.0	3.9
Ferrochromium (less than 4% carbon)	2.5	0.0	2.5
Ferrosilicon chromium	10.0	0.0	10.0
Ferromolybdenum	4.5	2.5	2.0
Ferrotungsten and ferrosilicon tungsten	5.6	0.0	5.6
Ferroniobium	5.0	2.5	2.5
Iron and nonalloy steel in primary forms (o/than ingots)	0.0	2.5	2.5
Pig iron, spiegeleisen, and iron or steel granules	0.0	3.0	3.0
Ferrozirconium and ferroalloys	4.6	2.5	2.1

* All rates are ad valorem. Average is of all 8-digit items in each 6-digit HS classification.

Sources: U.S. International Trade Commission database; Finance Canada; author's calculations.

Motor Vehicles

The auto industry is heavily integrated across the Canada-U.S. border and Canadian automobile sales represent 20 percent of Canadian exports to the United States. Table 4 showed that average MFN rates for Canada and the U.S. are close in the auto sector. However, averages obscure a few products where MFN rates differ considerably. For example, the U.S. imposes a 25-percent tariff on trucks, and Canada's rates range from 0 percent-to-6 percent in the same category. Canada imposes MFN rates of 6 percent or higher on a number of parts and accessories, and U.S. rates range from 0 percent-to-2.5 percent on the same products.

Iron and Steel

The steel sector is often cited as a possible candidate for a customs union because of its considerable cross-border ownership, sourcing of raw materials and common union representation.[40] Iron and steel, together with products made from them, account for a relatively modest 2 percent of Canadian exports to the U.S. and nearly 2 percent of imports from the U.S., though the industries have spill-over effects on other sectors of the economy, particularly coal, gas, electricity, iron ore, limestone, zinc and other metals.[41]

40 See, e.g., Canada (2002) p. 185. Trade Minister Pierre Pettigrew has suggested a possible customs union in the steel sector (see "Canada, U.S. consider one steel market". *Globe and Mail*. B2. February 1, 2003.)

41 Canadian Steel Producers Association online information. Available at http://www.canadiansteel.ca/industry/info.htm.

As Table 4 shows, average Canadian and U.S. MFN rates for iron and steel are both less than 1 percent. For iron and steel products, the average MFN rates are slightly higher, but differ by only 1.4 percent. Table 7 shows iron and steel categories (excluding their products) for which average MFN rates differ by more than 2 percent.

There are few items on this list and most of them are types of iron rather than steel. U.S. tariffs tend to be higher than Canadian ones. MFN rates for both countries are zero, or close to zero, for most iron and steel categories, including alloy, non-alloy and stainless steel. Currently, the United States and Canada extend different tariff preferences for those categories where MFN rates are greater than zero. Jordan, for example, pays rates lower than MFN when exporting to the U.S. If, however, MFN rates converged to zero with a common external tariff, the other preferences on those products would be irrelevant.

Policy Implications

The benefits, costs and logistical challenges of a customs union raised thus far need to be considered in the larger context of Canada's objective of capturing the benefits of free trade with the United States, potential opposition from special interests, and U.S. interest in a customs union project.

All variants on a customs union would secure economic gains and solve pressing commercial problems.

In terms of capturing overall benefits from Canada-U.S. free trade, eliminating rules of origin costs should be viewed in the larger context of other trade costs — including those resulting from heightened border security.[42] If border-security costs are significant impediments to trade, then the incremental gains from a customs union may be small and Canadian policy should focus on border-security expenses. On the other hand, if border-security expenses are permanent, eliminating rules of origin may be one of the few available ways to reduce trade costs. Even small reductions in border-trade costs can have a large impact on Canada-U.S. trade (Fairfield, 2001).

The results discussed in this paper suggest that the greatest economic gains from a common external tariff are those associated with eliminating rules of origin, though these benefits vary across sectors. Rules of origin tend to be more costly where U.S. and Canadian MFN rates are high because there is less of an incentive to export under MFN to avoid NAFTA rules of origin compliance costs. The greatest gains from rules of origin elimination are expected to flow to those producers who depend on intermediate goods, consumers and small and medium-size businesses. The trade and investment benefits are expected to be relatively more significant for Canada than for the United States. Employment losses are expected to be temporary and small. Tariffs are unlikely to rise on average and trade-diversion costs are not expected to offset the benefits from eliminating rules of origin.

All variants on a customs union approach would secure economic gains from rules of origin elimination and solve pressing commercial problems. A deeper customs union would eliminate more border frictions than a basic union. A common external tariff for all industries is likely to raise a significant number of

42 See Goldfarb and Robson (2003) for an assessment of these potential costs.

logistical and political challenges and involve some loss of policy independence. Tariffs are structured for historical reasons, based on the influence of special sectoral or regional interests. Special interests that pushed for high tariffs or restrictive rules of origin would presumably oppose a reduction in tariffs or the elimination of rules of origin.[43]

Because external tariff rates are similar in a number of important sectors, a customs union that allowed exceptions, a sectoral approach, or eliminating rules of origin when tariff rates are close, appear desirable and potentially feasible approaches. These arrangements will solve some commercial problems in those sectors, achieve economic gains and avoid politically sensitive areas, though overall economic benefits would be more limited than if the entire economy were involved.

Rules of origin elimination in eligible sectors would increase investor confidence and reduce border costs. Another desirable option that could secure some of the gains associated with eliminating rules of origin costs is for Canada and the U.S. to agree to drop the external tariff to zero on most intermediate goods.

Tables 3 and 4 provide a starting point for identifying sectors where rates are already close. With a sectoral, or basic customs-union approach that allows for exceptions, it would still be challenging to reconcile all elements of the tariff structure, though when MFN rates are already low, other tariff preferences are similar between Canada and the U.S. Reconciling the whole tariff structure would not be necessary if rules of origin were eliminated when tariff rates are already close, though fewer sectors would be eligible.

A sectoral approach would be more flexible than a basic customs union. For example, it would be possible to adopt a trilateral approach in some sectors but not in others.

Sectors where rules of origin are strict and costly — and therefore the expected gains from removing them large — and where U.S. and Canadian tariff structures are similar, would be appropriate priority areas for sectoral-tariff harmonization. For example, autos, auto parts and electronic components have strict rules of origin, a moderate difference between NAFTA and MFN rates, and similar tariff structures between Canada and the U.S. Such sectors as iron and steel, where rules of origin are less costly, and MFN rates are already low, but where rates are easily reconcilable, would be appropriate second-priority areas for a sectoral approach. These areas tend to be highly integrated cross-border.

As with a basic customs union, a sectoral approach would require Canada to coordinate its position with the U.S. in future negotiations related to the chosen sectors. Where candidate sectors are highly integrated cross-border, and MFN rates are already similar between the two countries, a common position may not be a problem and could even be an advantage. Canada might gain from a stronger voice where both countries have common negotiating objectives. Where MFN rates are harmonized at zero, further coordination would not be required. Still, Canada would need to consider the constraint on future policy making carefully. Eliminating rules of origin where rates are close would not impose these same constraints on decision making.

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43 The reason strict rules of origin were imposed in the auto sector in the first place was to protect against Japanese and European companies establishing assembly operations in Mexico as a back door to U.S. and Canadian markets (Morici, 1993).

A sectoral approach would be more flexible than a basic customs union. For example, it would be possible to adopt a trilateral approach in some sectors but not in others. This might make sense in industries like autos, which are highly integrated across Canada, the U.S. and Mexico. Similarly, it might allow for the elimination of non-tariff barriers and AD and CVD actions in those industries that are part of a sectoral union — an important issue in the steel sector. Another example of flexibility is that MFN rates for some parts of a sector could be harmonized and rules of origin eliminated.

An important downside of this flexibility is that it encourages easy wins, without working to harmonize those areas where payoffs from rules of origin elimination might be greater. Another disadvantage is that it would be difficult to keep the selection of sectors independent of political influence and the project could stagnate at, say, one sector in the absence of political will to include a greater number.

Would the United States find it worthwhile to overcome political opposition to tariff changes, in addition to all the logistical challenges outlined earlier? A customs union would represent economic gains and solve pressing commercial problems. From a security perspective, it would free up border resources to be deployed against security risks. It would also fit with a framework of addressing security concerns upon first entry into North America. However, the U.S. government would not easily give up its independence in trade negotiations, nor surrender the right to use trade-remedy laws. As well, the U.S. list of future FTAs, especially when compared with the Canadian one, suggests that U.S. resources are being directed in a way that would greatly complicate a future customs union. This suggests that it would be better to negotiate a customs union sooner rather than later, and particularly before the expiration of U.S. Trade Promotion Authority (TPA).[44]

A customs union might be more interesting to the U.S. as part of a larger package of security and economic initiatives. In 1983, Canada tried to negotiate sectoral FTAs with the U.S. The initiative failed largely because it was difficult to find the necessary momentum and political support to negotiate free trade along sectoral lines (Hart, 2002). A larger package could provide momentum for sectoral tariff harmonization or a basic customs union project that would otherwise be likely to get lost in the diffuse U.S. political system.

Along the same lines, a customs union that was bundled together with services and possibly labour-market integration may be of much more interest to the U.S. than a stand-alone agreement.[45] This would result in a common set of barriers against third countries in services markets.

Conclusion

This *Commentary* discusses the feasibility and desirability of a Canada-U.S. customs union, based on available evidence. As Canada determines how best to safeguard

44 TPA expires June 1, 2005 but will be extended automatically until June 1, 2007 if neither House of Congress adopts a resolution opposing extension.

45 I am grateful to Rick Harris for this suggestion.

its access to the U.S. market, more analysis of the effects of a customs union and its variants is critical. Policy makers must be aware of the possible challenges and benefits of each variant. The Canadian Department of Foreign Affairs and International Trade is currently analyzing the impact of a Canada-U.S. customs union on trade flows, industry structure, economic welfare and production efficiency. The Canadian government's Policy Research Initiative has also initiated a study of the merits and costs of a customs union. This study hopefully provides a useful starting point against which they can measure their conclusions.

A customs union would certainly not be a panacea for all the impediments to smooth flows across the Canada-U.S. border, but it would be an important improvement, reducing investor uncertainty, diversifying Canadian trade, reducing border paperwork and resulting in lower component prices for producers and lower prices for consumers. On its face, a customs union appears seductively simple. Decision makers should be aware, however, that getting there would involve a significant number of challenges and some loss of policy independence. Canada would have to reconcile its tariff structure with that of the U.S., most notably in agriculture, textiles and clothing. And though a customs union with a common trade-remedy regime would reduce Canada-U.S. trade irritants, the U.S. Congress jealously guards the use of those laws. A customs union with exceptions, sectoral tariff harmonization, eliminating MFN tariffs on all intermediate goods, or eliminating rules of origin where tariff rates are close are practical intermediate options that could establish more secure access for Canada to the U.S. market with fewer challenges. All improve on the status quo and would create a more predictable trade and investment climate, enabling the nation to more fully reap the benefits of Canada-U.S. free trade.

Appendix A: Difficulties in Comparing Canada-U.S. Tariff Rates

Canada and the U.S. set their tariff rates at the Harmonized System (HS) 8-digit level, but the HS is only comparable between Canada and the U.S. at the more aggregated 6-digit level. The analysis in this paper therefore compares tariff averages and ranges rather than specific tariffs. Furthermore, tariff rates are calculated in different ways for different goods and in different ways, depending on whether quotas have been exceeded or not. Some are calculated on an ad valorem basis (percentage of the value of the import) and others on a fixed basis (a fixed amount per unit imported). Still others are calculated on a fixed basis but must be greater than a particular ad valorem amount. For Canada, non-ad valorem tariffs are specific rates for 154 items, compound rates on 50 items, and mixed rates on 183 (WTO, 2003).

As well, easily accessible Canadian data are for applied rates; easily accessible U.S. data show bound rates. Applied rates could, in some instances, be lower than bound rates. Each country's tariff schedule also includes rates for goods classified in the country's special classifications which are unique to each country, as well as rates on imports subject to temporary legislation.

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